MARSHALL STABILITY TEST APPARATUS AZA0953

The AZA0953 Marshall Stability Test Apparatus from AZALAB is a fundamental laboratory system used for evaluating the performance characteristics of compacted bituminous mixtures. It forms the core of the Marshall Mix Design Method, one of the most widely adopted procedures for asphalt pavement design and quality control worldwide.

The apparatus is specifically designed to determine two critical parameters:

- Marshall Stability – Load-bearing capacity of the mix
- Marshall Flow – Deformation behavior under load

Together, these parameters define the strength, flexibility, and durability of asphalt pavements under real traffic conditions.

Key Functional Features

- Heavy-duty steel load frame

Ensures rigidity and accurate load transfer

- Smooth-operating loading ram

Maintains uniform loading rate

- Precision proving ring system

Reliable load measurement

- High-strength Marshall breaking head

Designed for standard 4-inch specimens

- Robust, low-maintenance construction

Ideal for continuous laboratory use

TECHNICAL SPECIFICATION

Parameter	Specification
Model	AZA0953
Test Method	Marshall Stability & Flow
Operation	Manual / Semi-automatic
Load Capacity	25 kN or 50 kN
Loading Rate	50.8 mm/min
Load Measurement	Proving ring with dial gauge
Flow Measurement	Dial gauge (0–25 mm)
Flow Resolution	0.01 mm
Specimen Size	101.6 mm (4 inch)
Breaking Head	Hardened steel, semi-circular
Temperature Conditioning	External bath/oven required
Standard Test Temp	60°C
Power Supply	230V AC (motorized version)
Frame	Heavy-duty steel

Standards & Compliance

The AZA0953 conforms to:

- IS 2720 (Part 10) – Marshall Stability & Flow
- ASTM D6927 / ASTM D1559 (method alignment)
- AASHTO T245
- MoRTH & IRC specifications (India)